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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,801	09/22/2000	Timothy J. Williams	0325.00417	2047
21363	7590	09/19/2005	EXAMINER	
CHRISTOPHER P. MAJORANA, P.C. 24840 HARPER SUITE 100 ST. CLAIR SHORES, MI 48080			CAO, CHUN	
			ART UNIT	PAPER NUMBER
			2115	

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/668,801

Applicant(s)

WILLIAMS, TIMOTHY J.

Examiner

Chun Cao

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-25 are presented for examination.
2. The text of those applicable section of Title 35, U.S. Code not included in this action can be found in the prior Office Action.
3. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6, 7, 10, 12 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Farleigh (Farleigh), US patent no. 5,206,857.

As per claim 1, Farleigh discloses an apparatus comprising:

a circuit [640, fig. 6] configured to generate an output having a frequency [col. 7, lines 21-23], and adjust said frequency in response to a measured duration of a know time interval associated with a predefined bit pattern [col. 7, lines 1-2] occurring in an input data stream [col. 8, lines 12-68].

As per claim 2, Farleigh discloses that the input data stream comprises one or more of said time intervals [col. 8, line 12-32].

As per claim 3, Farleigh discloses that time intervals are delimited by periodic events in said input data stream [col. 8, line 12-32, 45-56].

As per claim 6, Farleigh discloses that the circuit comprises a calibration circuit [fig. 6] configured to generate a control signal in response to said input data stream and said output; and an oscillator circuit [640, fig. 6] configured to generate said output in response to said control signal [col. 8, lines 33-68].

As per claim 7, Farleigh discloses a digitally tunable oscillator circuit [640, fig. 6].

As per claim 10, Farleigh discloses one or more counters [620, fig. 6].

As per claim 12, Farleigh discloses that counters are configured to count in response to said output [col. 8, lines 33-56].

As per claim 15 is written in means plus function format and contains the same limitations as claim 1, therefore, the same rejection is applied.

As per claim 16, claim 1 basically is the corresponding elements that are carried out the method of operating steps in claim 16. Accordingly, claim 16 is rejected for the same reason as set forth for claim 1.

6. Claims 4-5 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farleigh (Farleigh), US patent no. 5,206,857 in view of Applicant Admitted Prior Art (AAPA).

As per claim 4, Farleigh does not disclose a start-of-frame (SOF) packets of a Universal Serial bus protocol.

AAPA discloses that periodic events comprise start-of-frame (SOF) packets [page 2, lines 16-17] of a Universal Serial bus protocol [page 2, lines 10-18].

It would have been obvious to one of ordinary skill in the art at time the invention to combine the teachings of Farleigh and AAPA, and the specific teaching of AAPA that would improve the functionality of Farleigh's system by implementing in USB protocol.

As per claim 5, inherently, AAPA teaches of adjusting the frequency within 0.25% of a host data rate [page 2, lines 15-18].

As per claim 25, inherently, AAPA discloses that input data stream comprises USB 2.0 host full-speed communications SOF packets [page 2, lines 10-18].

7. Claims 8-14 and 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farleigh (Farleigh), US patent no. 5,206,857 in view of Henson (Henson), US patent no. 6,158,014.

As per claim 8, Farleigh does not explicitly disclose a detector configured to detect said predefined bit pattern.

Henson discloses a calibration circuit comprises a detector circuit configured to detect said predefined bit pattern and a SOF packet [col. 3, lines 46-61; col. 4, lines 1-17].

It would have been obvious to one of ordinary skill in the art at time the invention to combine the teachings of Farleigh and Henson, and the specific teaching of Henson would improve the reliability of Farleigh's system by detecting bit pattern of input data stream.

As per claim 9, Henson discloses that detector circuit is further configured to detect a SOF packet [col. 3, lines 46-61; col. 4, lines 1-17].

As to claims 10 and 12, inherently Henson discloses the calibration circuit comprises one or more counters that configured to count in response to said output [fig. 1; col. 4, lines 1-17].

As per claim 11, Henson discloses counters are configured to start counting in response to a first SOF packet and counting in response to a second SOF packet [col. 4, line 58-col. 5, lines 38].

As per claim 13, Henson discloses calibration circuit comprises a look-up table [col. 5, lines 1-32].

As per claim 14, Henson discloses the look-up table containing a number of values for adjusting frequency [col. 5, lines 1-32].

As per claim 22, Henson discloses that predefined bit pattern comprises a packet identifier field of a SOF packet [col. 3, lines 35-55].

As per claim 23, Henson discloses that circuit comprises:  
a detector circuit configured to generate a detection signal in response to detecting said predefined bit pattern in said input data stream [col. 3, lines 46-61; col. 4, lines 1-17]; and

a counter circuit configured to generate a count signal in response to said detection signal and said output [fig. 1; col. 4, lines 1-17].

As per claim 24, Farleigh discloses that a control circuit configured to generate a tuning signal in response to said count signal and said output; and oscillator circuit

Art Unit: 2115

configured to generate said output in response to said tuning signal [fig. 6; col. 8, lines 33-68].

8. As to claims 16-21, claims 1-14 basically are the corresponding elements that are carried out the method of operating steps in claims 16-21. Accordingly, claims 16-21 are rejected for the same reason as set forth for claims 1-14.

9. Applicant's arguments filed on 9/8/2005 have been fully considered but are moot in view of new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun Cao whose telephone number is 571-272-3664. The examiner can normally be reached on Monday-Friday from 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 571-272-2100.

Art Unit: 2115

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Chun Cao', written in a cursive style.

Chun Cao

Sep. 13, 2005